

Examples of good practices in Polish agriculture

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Musculoskeletal disorders (MSD's)

- Serious problem among the working population especially people working with significant physical exertion
- European Agency for Safety and Health at Work 2007 – MSDs are a significant health problem associated with work:
 - 25% of workers complain of backache
 - 23% suffer from muscle pain
 - 50,5% muscle and low back pain in the agriculture and fisheries

Musculoskeletal disorders (MSD's)

- Reducing the load and fatigue at the work place can be an important element in reducing the occurrence of MSDs
- It is therefore important to develop optimal solutions to perform the work tasks in agriculture in such a way as to minimize the load on the musculoskeletal system

Characteristic of agriculture tasks

- Lots of works in agriculture causes static load especially for trunk – spine
- Some works are recognized as repetitive tasks in short period (max-few weeks)
- Lifting and carrying are occur every day
 - Above tasks may create **high risk of MSDs**
- Good practices referred to activities performed during milking cows, driving a tractor and harvesting fruits

Driving a tractor – machinery at the front

- Tractor driving often requires twisting of the body during observation tasks operated by machinery linked to the tractor
- Assembly of machinery at the front of the tractor



Driving a tractor – education concerning work postures

- Driver very often needs to fasten and unfasten machinery to the tractor
- This task involves uncomfortable postures and exerting forces
- Being more aware of risks related to performed tasks and learning of proper behaviour can improve work postures adopted during work, which can decrease musculoskeletal load



Milking cows – small chair

- Many tasks related to milking cows involves squat body posture. This body posture is adopted during such tasks as cleaning udder, attaching or detaching the milking machine
- Change posture during preparation tasks for milking cows by using small chair, when not used fastened with belt to the hip



Milking cows – small table

- Straining out milk – milk is poured from one barrel to the other
- Usually farmer puts one barrel on the floor and pours milk from the other
- Changing the way of pouring milk by using small table
- This solution do not decrease load in shoulders, however, it strongly diminishes load in back



Harvesting fruits – ladder and a hook for fruit bucket

- Picking apples from the higher part of tree requires body posture with hands above the shoulder
- Ladder to pick fruits from higher level of trees and a hook as a supporting device for carrying a fruit bucket with apples



Harvesting fruits – small box as a table

- Fruits reaching, picking and putting into a bucket. Putting apples to bucket situated on the ground level requires bend down body posture creates lower back pain
- Put a bucket on a box or boxes (depends on the man's height) to adjust working height destination of collecting fruits to more suitable for workers



Harvesting fruits – platform for picking fruits from trees and special boxes

- Picking apples from the higher part of tree requires body posture with hands above the shoulder joints
- Adjustable platform for picking fruits from trees with big crate in the centre and place for pickers from both sites of crate.
- Worker picks fruits from trees and throws them to a small box fixed on a railing. Material bottom of the box allows throwing fruits from box to the crate smoothly.



Conclusion

- The proposed solutions pointed to the possibility of simple changes to accede to a more comfortable body position
- Recommendation for changing positions and more frequent breaks
- Learning of proper behaviour and being more aware of risks related to work postures connected with musculoskeletal disorders